



3 NUTRITION SERVICES

Effective: 12/1/95

3.12 Nutrition Risk Determination: Weighing Infants and Children

Revised: 5/17/04

POLICY: Weight measurements are required for certifications of all infants and children. Weight measurements must be done on-site, using standardized procedures and approved and properly maintained equipment (see Policies 3.50 and 3.51), unless measurements no more than 60 days old from another health care provider are available at the time of certification.

PROCEDURE:

A. PROCEDURE FOR PEDIATRIC SCALES

Weigh infants, children under the age of 24 months (recommended), and children who cannot yet stand on a pediatric scale.

1. Equipment needed: Table model beam balance pediatric scale with nondetachable weights or a high quality electronic/digital scale (see Policy 3.50), paper towels (recommended, optional), and a quaternary ammonium compound or a bleach solution mixed at a 1:10 dilution prepared daily.
2. At the beginning of the day, make sure the weighing area is clean, and all needed forms, equipment, and materials are available.
3. With beam balance scales, zero balance the scale before weighing each child by moving weights on both the upper (fractional) and lower (main) beams to zero. Turn the adjustment zeroing weight until the marker points to zero. (Do this with a paper drape or pad on the scale, if used.)
4. If the child is less than 12 months old, weigh nude or weigh in a clean, dry diaper. If the child is 12 months to less than 24 months, the child should be weighed in a clean, dry diaper and underclothes. If a facility is not conducive to these clothing recommendations (e.g., too cold, lack of privacy), the WIC Project must have a written policy regarding clothing permitted at that particular facility and should assure that those procedures are consistently performed. In those circumstances, weighing in, e.g., a clean, dry diaper and T-shirt is allowable, though weighing in heavy clothing such as sweat pants, sweat shirts, and heavy jeans is not.
5. Place the infant or child safely in the center of the scale platform (or child seat) being sure that the infant or child is not touching the post or beam of the scale.
6. Obtain the weight measurement.



- a) With beam balance scales, move the lower weight away from zero until the marker drops below the center point. Then move the weight back toward zero until the marker is just above the center point. Move the upper weight away from zero until the marker is centered. It may be necessary to move the upper weight back and forth a few times until the scale is balanced. Read the weight measurement to the nearest half-ounce.
 - b) Digital scales will automatically show the measurement.
7. Repeat the measurement procedure as indicated.
 - a) Repeat the measurement if accuracy of the weight measurement is questionable (e.g., infant or child moved too much, the weight might have been misread, the weight is questionable based on current or past weight-for-length plots, etc.) or if the health screener is new to the position and is in training.
 - b) To weigh again, it is recommended to remove the infant/child from the scale so that the scale may be zero-balanced. The WIC Project must have a written policy that states the procedure used. Repeat the measurement procedure until 2 agree within one-half ounce. Use the larger of those two measurements.
 8. Immediately record the measurement on the infant/child's growth chart. Enter the measurement into the ADP system.
 9. Take the infant or child off the scale. At least per family, use new paper towels for lining the scale or, if towels are not used, clean with the quaternary ammonium compound or bleach solution, wipe down again, and let air dry. If soiled, discard paper (if used) and clean scale as stated above.
 10. If using a beam balance scale, return both the upper and lower beam weights to zero. If using a digital scale, reset it.
 11. At the end of the day, clean the scale with the quaternary ammonium compound or bleach solution, and make sure that the area is neat, clean, and ready for use the next day.

B. PROCEDURE FOR ADULT SCALES

Weigh children age 24 months or more on an adult scale. (It is recommended to weigh children less than 24 months of age on a pediatric scale; see part A.)

1. Equipment needed: Floor-model beam scale or a high quality electronic/digital scale (see Policy 3.50) placed on a level, uncarpeted surface or, if a carpeted site, on a piece of strong plywood that will not flex under the scale; paper towels; and



a quaternary ammonium compound or a bleach solution mixed at a 1:10 dilution prepared daily.

2. At the beginning of the day, make sure the weighing area is clean, and all needed forms, equipment, and materials are available.
3. Balance beam balance scales before weighing each individual.
4. Weighing children in underclothing is recommended. If a facility is not conducive to these clothing recommendations (e.g., too cold, lack of privacy), the WIC Project must have a written policy regarding clothing permitted at that particular facility and should assure that those procedures are consistently performed. In those circumstances, weighing in lightweight clothing is allowable, though weighing in heavy clothing such as sweat pants, sweatshirts, and heavy jeans is not. If concerned about contamination (e.g., person has dirty feet, plantar warts), leave socks on or put a paper towel on the scale.
5. Have the child stand in the center of the scale, feet slightly apart.
6. Obtain the weight measurement.
 - a) With beam balance scales, move the lower weight away from zero until the marker drops below the center point. Then slide the weight back toward zero until the marker is above the center point. Move the weight on the upper beam away from zero until the marker is centered. It may be necessary to move the upper weight back and forth a few times until the scale is balanced. Read the weight measurement to the nearest one-quarter pound. Return the weights to zero.
 - b) With digital scales, the scale will automatically show the measurement.
7. Repeat the measurement procedure as indicated.
 - a) Repeat the measurement if accuracy of the weight measurement is questionable (e.g., child moved too much, the weight might have been misread, the weight is questionable based on current or past BMI-for-age plots, etc.) or if the health screener is new to the position and is in training.
 - b) To weigh again, it is recommended to remove the child from the scale so that the scale may be zero-balanced. The WIC Project must have a written policy that states the procedure used. Repeat the measurement procedure until 2 weights agree within one-quarter pound. Use the larger of those two measurements.



8. Immediately record the measurement on the child's growth chart. Enter the measurement into the ADP system.
9. Take the child off the scale. At least per family, use new paper towels for lining the scale or, if towels are not used, clean with the quaternary ammonium compound or bleach solution, wipe down again, and let air dry. If soiled, discard paper (if used) and clean scale as stated above.
10. If using a beam balance scale, return both the upper and lower beam weights to zero. If using a digital scale, reset it.
11. At the end of the day, wipe down the scale with the quaternary ammonium compound or bleach solution, and make sure that the area is neat, clean, and ready for use the next day.

C. INABILITY TO OBTAIN ACCURATE WEIGHTS

1. If the infant or child will not hold still enough to get an accurate reading, estimate as closely as possible, or estimate the weight by subtracting the parent/caregiver's weight from the combined parent/caregiver and infant/child's weights (obtained on the adult scale).
2. If the child is missing a body part, the following percentages of total body weight can be added to the child's weight to estimate total weight:

Arm	6.5 %
Forearm and Hand	2 %
Hand	1 %

Leg	18.5%
Lower Leg and Foot	9 %
Foot	2 %

Example: A child weighs 60 lbs and is missing an arm. An arm is 6.5% of estimated total body weight (100%). $100 - 6.5 = 93.5$. 60 lbs is 93.5% of x (estimated total body weight). The estimated total body weight is 64.17 lbs. (about 64 lbs 4 oz).

3. Document in the participant's file (e.g., directly on the growth chart) that the measurement is an estimate and the reason why (e.g., wouldn't stay still, determined by weighing caregiver and child, missing a specific body part).
4. Do not use a weight-related anthropometric risk factor unless the CPA is very sure a risk is present (e.g., obviously under- or overweight).
5. Enter the estimated weight (if reasonably accurate) or the "unknown" code into the ADP system.



D. SPECIAL TIPS

1. When using an infant scale, to help relax an infant and/or distract the infant from playing with the scale, place a mobile above the scale or pictures on the ceiling, or have the mother or caregiver entertain the infant with a toy.
2. When using an adult scale, use contact paper to put brightly colored footprints on the scale. This encourages children to match their feet to those on the scale.
3. Errors to avoid:
 - a) Scale not calibrated to zero
 - b) Adult scale placed on carpeting or pad
 - c) Infant/child not centered on scale
 - d) Infant/child not undressed according to policy
 - e) Measurement taken when infant/child is moving
 - f) Measurement taken before balance indicator has stopped moving
 - g) Measurement reading not recorded immediately
 - h) Measurement not repeated as needed

NOTES:

Available resources:

- * USDHHS Maternal and Child Health Bureau training modules, available at <http://depts.washington.edu/growth/> (can also be accessed at www.cdc.gov/growthcharts or at www.nal.usda.gov/wicworks, WIC Learning Center, Growth Charts)
- * USDA, Food and Nutrition Technical Assistance: *Anthropometric Indicators Measurement Guide, 2003 Revised Edition*, available at www.nal.usda.gov/wicworks, Measuring and Weighing
- * Videotape in Wisconsin WIC Health Screener Orientation Manual (first distributed to local WIC projects in 1997)